

Application No. 10/674,703
Response dated November 5, 2007
to Office Action mailed June 12, 2007

REMARKS

Applicant would like to thank the Examiners, Patricia George and Binh Tran, for the courtesy afforded in the telephone interview that occurred on October 23, 2007 between applicant's representative, Kristi L. Davidson, and the Examiners.

The Examiner has rejected claim 2 under 35 U.S.C. § 112, second paragraph. Claim 2 is canceled herein, thereby rendering the rejection moot.

Claims 1, 2, 5-7, 20-21 and 31-32 are rejected under § 102(b) as being anticipated by Ludviksson et al. U.S. Patent Application Publication No. 2004/0125360 (hereinafter "the Ludviksson publication"). Claims 1-9, 12-13 and 17 are rejected as being unpatentable over Ludviksson et al. in view of Yin et al. U.S. Patent No. 6,379,575. Claims 10-11 are rejected as being unpatentable over Ludviksson et al. in view of Chow et al. U.S. Patent No. 6,872,322. Claims 14-16 and 30 are rejected under § 103(a) as being unpatentable over Ludviksson et al. in view of Tsai et al. U.S. Patent No. 6,592,817. Claim 18 is rejected under § 103(a) as being unpatentable over Ludviksson et al. in view of Kim et al. U.S. Patent No. 6,436,303. Claims 23-24 are rejected under § 103(a) as being unpatentable over Ludviksson et al. in view of Nakata et al. U.S. Patent No. 5,989,928. The following remarks are respectfully submitted.

Claims 31 and 32 are canceled herein, thereby rendering the rejections moot as to those claims.

The Ludviksson publication was indicated by Examiner to be prior art under § 102(b). As discussed and agreed to in the telephone interview referred to above, the Ludviksson publication is only prior art under § 102(e) in view of its publication date of July 1, 2004 being after the September 30, 2003 filing date of the instant application. For all rejections under § 103(a), Applicant hereby asserts common ownership under § 103(c) and in accordance with MPEP § 706.02(I)(2), per the clear and conspicuous statement below, such that the Ludviksson publication is not available as prior art under § 103(a).

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Statement of Common Ownership under § 103(c):

Application Serial No. 10/674,703 and U.S. Patent Application No. 10/331,456 (published under Publication No. US2004/0125360)(the Ludviksson publication) were, at the time the invention of Application Serial No. 10/674,703 was made, owned by Tokyo Electron Limited (Tokyo, JP).

Because the above statement regarding common ownership disqualifies the Ludviksson publication as prior art against the present application, Applicant respectfully requests that the rejections of claims under § 103(a) over the Ludviksson publication in view of Yin et al., Chow et al., Tsai et al., Kim et al., and Nakata et al. be withdrawn.

With respect to the rejection under § 102, Applicant traverses on the basis that the Ludviksson publication does not teach each and every element of the claimed invention. With respect to independent claim 1, which is now the only independent claim, the claim recites "the *system component consists of a material* selected from quartz, Al₂O₃, SiN, or SiC, and wherein the reactant gas is capable of etching *the system component material* to form an *erosion product thereof*; monitoring the processing system for release of *the erosion product* during the process" As discussed and agreed to during the interview referred to above, "the system component material" has antecedent basis as being a material selected from quartz, Al₂O₃, SiN, or SiC, and the erosion product has antecedent basis as being an erosion product formed from the reactant gas etching the system component material. The "monitoring" then refers to that erosion product from the system component material. The Ludviksson publication embeds an emitter material, which is not any of quartz, Al₂O₃, SiN, or SiC, in the material of the system component, then monitors the system for florescent light emission, which is emitted when plasma excites the emitter material. Monitoring for a light emission is not the equivalent of monitoring for an erosion product. As explained in the Ludviksson publication, the materials of the system components are substantially transparent to plasma light over a wide range of wavelengths. Fluorescent emitter material, on the other hand, when excited by plasma, absorbs the plasma light

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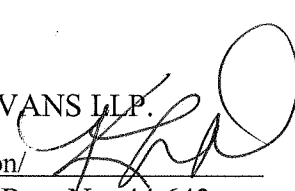
and re-emits it as fluorescent light, which the Ludviksson publication then monitors. Thus, there is no by-product formed by an erosion reaction between the system component material and the reactant gas that is monitored in the method disclosed in the Ludviksson publication. The Ludviksson publication simply does not teach a method of monitoring the system for an erosion product of the system component material. Because each and every element of claim 1 is not taught by the Ludviksson publication, the rejection of claim 1 and its dependent claims cannot stand.

In view of the foregoing amendments to the claims and remarks given herein, Applicants respectfully believe this case is in condition for allowance and respectfully request allowance of the pending claims. If the Examiner believes any detailed language of the claims requires further discussion, the Examiner is respectfully asked to telephone the undersigned attorney so that the matter may be promptly resolved. The Examiner's prompt attention to this matter is appreciated.

Applicants are of the opinion that no excess claims fee is due as a result of this Amendment. Applicants are also of the opinion that a two-month extension of time is due, and Applicants hereby petition for said extension. Payment of all charges due for this filing is made on the attached Electronic Fee Sheet. If any additional charges or credits are necessary to complete this communication, please apply them to Deposit Account No. 23-3000.

Respectfully submitted,

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